

Second Revised Reprint Edition.

OVARIAN TUMORS,
AND REMARKS ON
ABDOMINAL SURGERY.

WITH THE RESULT OF 50 CASES.

—BY—

EDWARD BORCK, A. M., M. D.,

PROFESSOR OF SURGERY, Etc.

ST. LOUIS, MO.

1887.

Weiss & Maceallum, Print. 3747 and 3749 North Broadway, St. Louis.

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Dr. Edward Borck's
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with splendid Rooms, Board and Trained Nurses.

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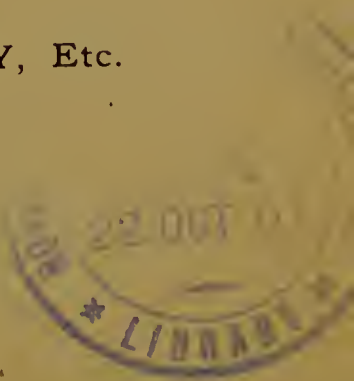
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PREFACE TO FIRST EDITION.

These lectures were delivered during the first three sessions of 1882-83, at the College for Medical Practitioners, St. Louis, Mo., and published at the request of many professional friends near and distant who were not able to listen to me in person. I prepared the first part for the Cincinnati Obstetric Gazette, wherein it appeared in September, 1883.

This reprint, with additional tables, and my method of operating is dedicated to the class of Medical Practitioners who attended my lectures during the above named sessions.

BY THE AUTHOR.

PREFACE TO SECOND EDITION.

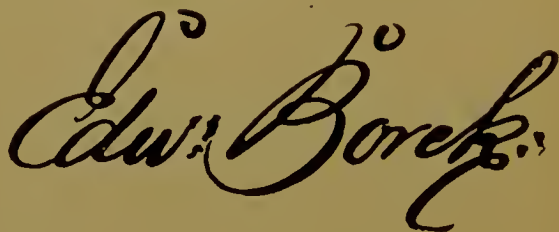
The first reprint edition as will be seen was published in 1883, the applications for the same were very numerous and gratifying, the reprints then on hand have long ago given out; however, the inquiries for the reprints continue to be received up to date.

To supply the demand and thinking it a duty owed to the profession, to contribute from time to time whatever experience one may have had, I offer and dedicate this revised edition to the Medical Profession in gratitude for the many kind favors received from my professional brethren and friends throughout this great valley.

The first part is a lecture on Diagnosis. The second part, my method of operating as lately delivered to my private classes. The third part, a paper read before the Mississippi Valley Medical Society.

I will be obliged to you if after reading this pamphlet you would acknowledge the receipt of the same; if this, like previous ones, will meet your kind recognition and prove to be a profit to you it will be the reward of the author.

Very truly yours,

A handwritten signature in cursive script, reading "Edw. Borchers". The signature is written in dark ink and is positioned in the lower right quadrant of the page.



PART I.

LECTURE ON DIAGNOSIS OF OVARIAN TUMORS.

FELLOW PRACTITIONERS!

In our last lecture we considered abdominal tumors in general and studied the various modes by which we are enabled to make a correct diagnosis, and under that head included also hernias. To-day we will take up a class of tumors to which the fair sex, whom we all adore and love so much, alone is heir to—Ovarian Tumors.

And as I speak to men that have had years of experience in their profession and love their study, I take it for granted that you are all acquainted with the pathology—I need not occupy your time with repeating what you can read. As usual, you find a roster upon the wall which will inform you of the papers and articles lately written upon that subject. In addition I call your attention to this little work of Garrigues on Diagnosis, and refer you to the late edition of Sir T. Spencer Wells, on Ovarian Tumors. Let us consider the diagnosis and take a simple case of ovarian tumor for our guide. It matters not what kind of an ovarian tumor we have, so we know it is ovarian and nothing else, and do not mistake it for other tumors or swellings, or the reverse.

For convenience's sake, the development of an ovarian tumor may be divided into four stages. Now let me make a diagram: on the left side the tumor begins to grow; as long as it is within the pelvis it is in the first stage; if it grows up to the umbilicus, it is in the second stage; from here to the epigastrium, it is in the third stage; and up to its highest point. In the fourth stage its prominence and circumference is alone increased. Between those boundary lines you may make subdivisions again if you choose. The reason why these tumors occur more upon the left side, is owing to the fact that the left ovarian veins have no valves.

Now let us reflect for a moment and see what disturbance we may expect to be produced by such a growth.

In the first stage: If the uterus is in a normal position the tumor is in front of the uterus and behind the bladder. There is irritation of the bladder, dysmenorrhœa, constipation, a feeling of a heaviness in the pelvis and hemorrhoids, the latter being frequent with polycysts.

In the second stage: What must it do? It must displace the small intestines to the opposite side, and as it has arisen out of the pelvis the uterus is therefore placed behind the cyst, and the bladder goes with the uterus. The tumor by this time has acquired a pedicle and is movable, the patient discovers it rolling about as a ball if no adhesion has been formed. There is a desire to urinate, but diminished action of the kidneys.

In the third stage: The small intestines are pushed up, the large omentum is only between the tumor and the abdominal walls, it is up to the epigastrium, presses upon the stomach and diaphragm, elevates the ribs, interferes with respiration and digestion, produces palpitation of the heart and the general health fails. We have *dérangements* of menstruation, emaciation of face and neck and upper extremities. There is a peculiar expression of the countenance, enlargement of the abdominal veins and œdema of the lower extremities.

In the fourth stage: The tumor extends in all directions where there is no resistance, all the symptoms are aggravated, the pulse runs up to 120-130.

I make these preliminary remarks to refresh your memory. Now suppose a patient comes to us with symptoms like these:—her abdomen has increased gradually in volume, without any sickness; she tells us the swelling first appeared in the iliac region and extended upwards; she has also observed in the beginning of the growth, by turning quickly in bed, a feeling like a ball rolling about in her abdomen. If the swollen abdomen appears like an advanced pregnancy, with well and equal fluctuation, if there is a dull sound in the anterior abdominal region in every position, but on the side a tympanitic sound upon percussion, if by the motions we impart to the swelling the uterus moves along but is of normal depth, then we can suspect an ovarian cyst. The whole character of the swelling speaks in favor of a cyst, the passive movements of the uterus along with the tumor indicates that the tumor belongs to the internal generative organs. The passive movements produced with the uterus and the normal size of the same, indicates to us that the swelling does not belong to the uterus; it must be an ovarian cyst. And we can prove this positively by making examination per rectum—and here I will say to you, make your examinations always for healthy organs, do not hunt for an ovarian cyst but for two normal ovaries—if you find both in their physiological condition exclude disease of the ovary, the swelling must be something else. If you find but one ovary normal and the other mentioned symptoms in addition, you will not go amiss to say ovarian tumor.

Aspiration of the fluid and the chemical and microscopical examination will clear up any doubt. The chemical character is principally albumen, extractive matters, fat and salt united with water, but it contains no fibrin, and the fluid is not spontaneously coagulable. (Here the microscopical appearance of what the fluid reveals, was shown, after Drysdale.) Now after this you may think it easy to make a correct diagnosis, but be not deceived, it is sometimes very difficult. Let me relate to you the history of a case. An American lady 25 years old, married, had two children, one living, 5 years old, she informed me when I first saw her in consultation with the physician then in attendance, that three years previously she noticed a swelling in her left iliac region which gradually grew larger; she felt that something was rolling about in her abdomen. She kept it secret and at last she became so large that her friends thought her pregnant with twins or triplets. She had suffered all this time with intermittent fever. Six months previous she had gone north, and came home improved in health. Physicians had recommended tapping, but it was not resorted to. She had passed a good deal of water at times, could not tell exactly, but believed it came from the bladder, then became more natural in size, still a large lump remained. The last three months she grew worse, the swelling became hard, every sixth day she would have an attack of fever and pain in abdomen—"Inflammatory attack, Peritonitis."

When I first saw this patient and before knowing anything about the particulars of the history of the case, I ventured to say to the attending physician that I expected to find an ovarian cyst, simply by the characteristic expression of the face. Upon an examination I found a large tumor in the left side, extending up to the umbilicus. Near the umbilicus a distinct fluctuation which I recognized as an abscess, or possibly nature's effort to open in that region; adhesion only on right side and in front of tumor, left lower side none, I could lift up the abdominal muscles there. Fluctuation otherwise not distinct, the whole tumor somewhat movable, uterus normal and pushed to right side. Per vaginam tumor could be felt; per rectum, right ovary plain, left not detectable, but tumor distinct. Great irritability of the stomach. She had been seen by a host of physicians, some eminent and well known, but no opinion was given; that is no one committed himself to a positive diagnosis. Poultices, liniment etc., had been applied externally, also internal medication, all to no purpose. Only temporary relief was obtained; she was very weak, no can-

cerous cachexia, no family history of cancer. I diagnosed positively an ovarian tumor, but gave a guarded opinion in regard to complications, recommended a tonic regimen to build her up. She recruited nicely. When I saw her again ten days later I was informed that she had passed something like fluid and matter, amounting to a quart, from her bowels. She was anxious to have something done to relieve her suffering. I recommended an operation, and carefully stated to all concerned that I would make an exploratory incision and then if advisable go on with the operation, otherwise abandon it. They all gladly consented in good hopes.—Now what do you expect? After opening the abdomen, I found a whole mass of adhesion, omentum, mesentery, intestines, all adherent together to the abdominal walls, the abdominal walls cancerous; the fluctuation we detected near the umbilicus turned out to be an encysted abscess; while cutting through the abdomen in the linea alba, a crackling sound could be heard; no where could an opening be found, all was one mass of adhesion. My assistants all look at me and I felt like I had made a mistake, or that I had been deceived in my diagnosis. I could not apprehend that I was mistaken, finally I succeeded in getting my finger between the walls of the abdomen and hunted for the left ovary. I assure you I felt relieved and confess, a little proud, when I exhibited a plain tumor, of that ovary about as large as a French turnip, or a child's head, a shriveled up sac without fluid. I could peel it out of the surrounding cancerous mass.

The patient's fate was sealed, but it was an instructive case—an ovarian cyst which nature had tried to cure spontaneously and a development of malignant growth not from the tumor, but from other parts and from other unknown causes, surrounding, or better, enveloping the tumor. They are perplexing cases! Not one symptom alone, but all combined should be taken into consideration and carefully studied and weighed.

It is said of Thomas Keith that he did not make a single mistake in his diagnosis in 200 successive cases. I cannot say this because my cases have not yet run up to that number. But I can say that in all my own cases, and in those which I have examined for others up to this time, I have been fortunate enough. My diagnosis have always been verified.

In regard to my success, I prefer to inform you.

Pregnancy, encysted dropsy of the peritoneum, uterine, fibroid tumors, distended bladder, renal tumor and cysts, cysts of the broad ligament, (these by the way are considered as the most difficult to diagnose,) ascites, etc., etc., have all been, and may again be mistaken for ovarian tumors. When I visited Europe three years ago I was fortunate enough to meet and make the acquaintance of the best surgeons and had ample opportunity to see them operate; I saw one of the world renowned Ovariologists make a mistake in his diagnosis; after opening the abdomen there was no ovarian tumor. Doctors are human and liable to err. Again, ovarian cysts may be complicated with pregnancy, ascites, uterine fibroma and second cyst.

Ascites is mistaken the most frequently for ovarian dropsy, though that mistake ought not to be made by any practitioner.

In ascites the intestine floats upon the fluid, consequently in the recumbent position of the patient the dull sound must be heard at the lowest point, the tympanitic sounds upon the highest point of the abdomen. In ovarian cyst the reverse. If the patient changes her position in ascites the fluid will always gravitate to the lowest point, the intestine floating upon it. In ovarian cyst it remains the same. It is also well to remember that œdema of the extremities appears after tumor is developed, but often precedes it in ascites. As I have said to you of other surgical affections that it is not well nor prudent for the surgeon at once to go to work with his hands and feel and twist and pinch the parts injured, but should first of all inspect with his eyes and educate them as perfectly as

possible to observe the different outlines, always having in his brain the normal contours and position, and then mark the abnormal. Here we can learn a good deal to our advantage with the aid of our eyes, look at these drawings.

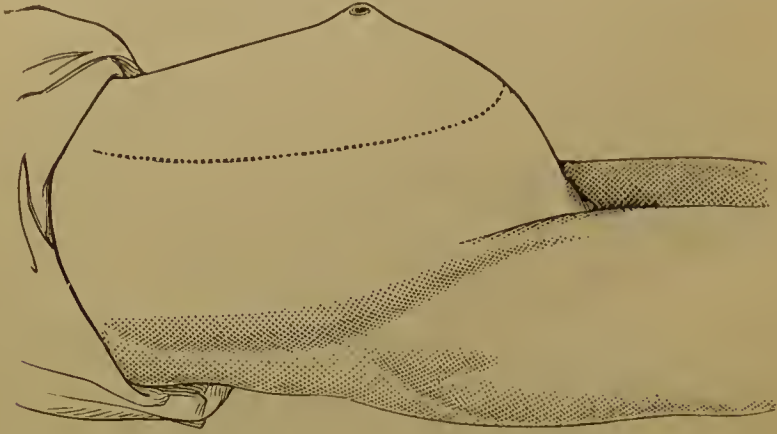


FIG. 1 is a lateral view of the abdomen affected with ascites.

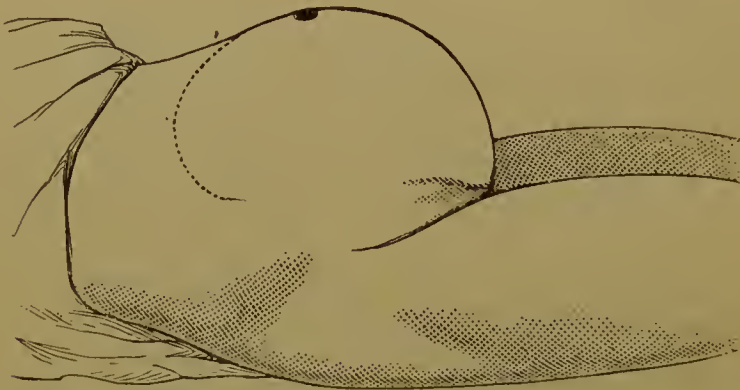


FIG. 2 is a lateral view of the abdomen affected with an ovarian cyst.
(Albert.)

We can see at once the difference in the shape and outlines, it needs no explanation. Observe the difference between the sternum and the umbilicus, and pubis, and look at the umbilicus itself, it may be obliterated in ovarian dropsy, but never presents an arching like it does in ascites, etc. One point I wish to call your attention to in ovarian cyst, you can grasp the abdominal wall between your fingers and lift them up from the tumor wherever there is no adhesion; in ascites you cannot do it.

The symptoms and signs of pregnancy I need not explain to you, you understand them too well, but let us remember that in the patient affected with an ovarian cyst the breast may become enlarged, and an areola around the nipples may be present, also morning sickness.

Of the diagnosis of uterine fibroid tumors we will speak some other time.

In regard to a distended bladder, all I wish to say is this: never under any circumstances depend upon the nurse or even the patient herself, they may be honest in telling you that she had just passed water, and a good deal of it. I lately met with a case and received such information, yet I introduced the catheter and drew off a large amount of urine, I do this every time before examining. Recollect the case on record related to you

of a child where the urethra was closed and the bladder adhered to the umbilicus and at or near that place had a fistulous opening through which the urine escaped; she was operated upon at the age of 18 years, and a passage made at the natural situation; the fistulous opening closed spontaneously. We meet sometimes with adhesion of the bladder at that point as a complication with ovarian cyst. Again, there are cases on record where an ovarian cyst became adherent to the umbilicus and formed a fistulous opening and a spontaneous cure took place.

How to diagnose tumors and cysts of the kidney: I have already spoken to you in a previous lecture; do not forget that tumors of the kidneys will enlarge from the posterior to the anterior part above and they push the intestine in front. The colon here is always in front and can be filled with air and be distended thereby and recognized.

In the cyst of the broad ligament the fluid is always as clear as spring water, contains no albumen and a manual examination per rectum under chloroform will detect two ovaries. These are the cysts that are cured by tapping.

Now this drawing represents a side view of an abdomen affected with a multilocular cyst, and this is a portrait of the characteristic feature (*facies ovariana*, after Wells.) The time of one hour is too short to go into details about everything, but to do you and the subject justice I have prepared these tables you see hanging upon the walls which you may study for yourselves. See tables, pages 10, 11 and 12.

Here you have the differential diagnosis of a mono cyst, a poly cyst and a dermoid cyst.

Then here the chemical consistence of the fluids of an ovarian cyst, cyst of the broad ligament, amniotic fluid and ascitic fluid. And here what the microscope reveals.

All this will give you a pretty good idea of the difficulties we may encounter and what is necessary to make a correct diagnosis. In conclusion I will say to you again: Be systematic in all your doings, only by following and carrying out a certain system can we expect to come any ways near to perfection. Let me repeat then:

First take the symptoms into consideration, the history of the case, the expression of the face and neck, the activity of the kidneys, the sympathetic affections of the mammae; then the local signs; then the rational signs as detected by the patient; then the physical local signs; exploration, such as inspection, measurements, palpitation, percussion, auscultation, change of position, vaginal touch, trocar, microscope; and last of all exploratory incision.

Second: Ask yourselves the following questions, so beautifully illustrated by the late Dr. Peaslee, and answer each and every one of them positively, viz:

Is there actually an enlargement within the cavity?

Is there fluctuation, indicating an accumulation of fluid within the abdomen, or a solid tumor? "Mesenteric fibroma or fibro-plastic."

Is the fluctuation due to ascites?

Does the cause of the enlargement arise in the pelvis?

Is not the tumor a pregnant tumor?

Is there not still an enlargement of the uterus though it be not gravid? "Hæmatometra, hydrometra, uterine hypertrophy, fibroma, carcinoma of fundus, uterine fibro cysts."

And to what is the fluctuation due? Serous cyst of the broad ligament, encysted dropsy of peritoneum, dropsy of fallopian tubes, renal cyst hepatic cyst, pelvic abscess, splenic abscess, etc."

In our next lecture we will take up the treatment, or rather when and how to operate, and I will demonstrate to you my method of operating.

OVARIAN DROPSY.

The tumor is most prominent upon one side, save in advanced stages.

The tumor remains prominent and globular in all positions of the body.

The tumor is locally fluctuant.

The tumor begins in one iliac fossa.

The percussion is dull in front when the patient lies upon her back, but is tympanitic, from displaced intestine, at the sides.

Is constant and not affected by attitude.

Palpitation detects an oval outline and an irregular surface to the tumor.

The cervix of uterus is normal in position.

The health is generally good until the tumor becomes large.

If present, œdema of the limbs *follows* the advent of tumor.

Aortic pulsation *may* be transmitted.

No apparent cause exists.

Normal color and moisture of the skin exist.

ASCITES.

The tumor is uniform and symmetrical.

The tumor *flattens* and *increases in its breadth* on lying down.

The tumor fluctuates through the *entire abdomen*.

The tumor begins symmetrically from below.

The percussion is resonant in front of abdomen, when patient lies on the back, as the bowel floats; but is *flat* at the sides of the abdomen.

Is variable, and is affected by attitudes of patient and by amount of fluid present.

No circumscribed outline to tumor or irregularity of surface is discovered.

The cervix is frequently displaced.

The health is usually impaired from the commencement.

It often *precedes* the ascites.

Aortic pulsation is never present.

Hepatic, cardiac, or renal disease often co-exists.

The skin is often jaundiced and is frequently dry like parchment.

Ranney.

FLUID DRAWN BY ASPIRATOR REVEALS:

OVARIAN FLUID.

Microscope may reveal:

Epithelial cells; oil globules; granular matter; cholesterine; ovarian granular cells; blood cells; Pus cells; Gluge's inflammatory corpuscles.

ASCITES.

Microscope reveals:

Pus cells; oil globules; amœboid bodies; squamous epithelium.

(Drysedale.)

HEALTHY AMNIOTIC FLUID

Is a thin pale straw-colored fluid, turbid and flocculent, has a peculiar odor—deposit occurs—on standing, its chemical character is alkaline, specific gravity: 1005-1010—contains no fibrin; but albumen, acid acet clouds it, becomes opaque on boiling. Microscope reveals: Epithelial cells; small tessellated cells, with oil globules and flocculi. Ether dissolves the last.

FLUID DRAWN BY ASPIRATOR REVEALS:

OVARIAN.

Amber or brown color.

Not spontaneously coagulable.

Specific gravity 1018 to 1024.

Paralbumen and metalbumen.

ASCITES.

Light straw-colored.

Spontaneously coagulable if fibrinous.

Specific gravity, 1010 to 1015.

CYST OF BROAD LIGAMENT.

Very slow growth, rare, always monocystic.

Mostly in young persons.

Expression natural; not much emaciation.

General health slightly impaired—though in third stage.

Abdominal veins less prominent.

Fluctuation remarkably distinct.

Uterus lies low, generally.

Per vaginam, fluctuation very clear.

Fluid contains no albumen, and is as clear as spring-water. Specific gravity 1005.

Scarcely ever fills after tapping.

Very seldom fatal.

OVARIAN CYST—THIRD STAGE.

Common; growth more rapid; two forms of cystoma.

Occurs at all ages.

Expression changed; emaciation.

Decidedly impaired.

Veins more developed.

Less distinct.

Not depressed, but behind tumor generally.

Less clear.

Contains much albumen, and is not perfectly transparent. Specific gravity 1015 or more.

Fills again after tapping.

Almost always fatal at last.

(*Peaslee.*)

MONOCYST.

POLYCYST.

DERMOID CYST.

Slower growth. Not common.

Peculiar expression comes later.

General health fails much later.

Abdomen symmetrical; if monocyst salient, pointed.

Enlargement from 35 to 45 inches.

Surface smooth if monocyst.

Tumor disappears after tapping.

Edema of lower extremities very rare, abdominal veins less enlarged and later.

Adhesions less common and less firm.

Inflammation of cyst-wall not common.

Ulceration of cyst-wall not common.

Spontaneous rupture not common.

Amenorrhœa comes later.

Fluctuation distinct, and throughout if a monocyst and from any point to all others.

Per vaginam, uterus is higher, and the fluctuation also.

Rapid growth. More common.

Comes much earlier.

Fails early; by end of second stage.

Not symmetrical; not pointed.

Sometimes to 55 or even 78 inches.

Lobulated; irregular.

Does not disappear.

Very common. Veins enlarged early.

Adhesions the rule, and vascular.

Not so common.

More common.

Far more common.

Comes much earlier.

Less distinct, and circumscribed.

Uterus lower, and the fluctuation also, or none at all.

Congenital. Very slow. Very rare.

Latest of all.

Very late.

Not symmetrical.

Smallest: generally 30 to 40 inches.

A monocyst, as a rule.

Does not completely collapse.

Very uncommon.

Adhesions not very rare.

Most common, proportionally.

Most common of all.

Very uncommon.

Very late.

Fluctuation more obscure.

Uterus lower: fluctuation dull.

Pedicle longer, as a rule.	Shorter as a rule.	No rule.
Fluid limpid, amber, bluish, or greenish, viscid, with much albumen.	Not clear, brownish, dense, gelatinous, or albuminous.	Light [color, curdy, no albumen, partly soluble in Ether.
Contains epithelial scales, cholestérine, and fatty granules, and the ovarian glomeruli.	Contains also blood-pigment and blood-corpuscles.	Contains epithelial scales, sebaceous matter, crystals of cholestrine, hairs, etc., etc.; a single hair is pathognomonic.

Exception.—An oligocyst of but two or three constituent cysts, with thin partitions, may give all the signs of a monocyst.

(*Peaslee.*)

PART II.

METHOD OF OPERATING.

FELLOW PRACTITIONERS!

We will now take up the operation and I will explain to you my method. A few of you will have an opportunity to see me operate upon the lady now in the house and assist; if possible I will give you all the same chance. We will take it for granted that before proceeding with the operation, you have made a correct diagnosis and have prepared the patient in the very best condition, have given the evening before an enema to clear out the bowels, and allowed a cup of milk and bread. On the morning of the operation have the patient bathed, dressed with a short gown, flannel drawers and stockings. Let her rest in an easy-chair, covered with a blanket, and if her skin is not moist steam her with some hot water or apply hot water bottles to her feet. This is essential, dry cold skin would be a disadvantage. Give her 10 gr. of quinine and $\frac{1}{4}$ gr. of morphine an hour before the operation. And by all means have her full confidence. Never persuade one to be operated on, but let the patient implore you to do so. At the same time your operating room, which should be the best room in the house, must have been prepared according to your own directions, and it is best to give them in writing or print as follows:

The room should be about 80° F. during the operation and kept at about 70° F afterwards. Free circulation of air should be secured.

All furniture, carpets, curtains, etc., are to be removed; the room is to be freshly whitewashed or varnished like my own private operating rooms, floor and woodwork all scrubbed with soap and water, and rinsed with water and chlorinated soda, one to two tumblerfuls to a bucketful of soft water. Procure a small, new bed-lounge—mine are made of iron—six feet long and twenty-eight inches broad, with two square blocks of wood six inches high or more, with holes drilled into them to receive the rollers of the feet of the bed to make it stand solid and firm and to elevate the bed to a proper height to suit the operator. Have a good firm mattress to fit the bed, it must be nine or ten inches high; two small tables; one chair; two yards of India rubber or oil cloth to spread over the bed; one-half dozen soft towels, three or four stone wash-bowls and one pitcher; one thermometer; one clean bucket for water, and one cup; one old bucket or tub; tumblers, drinking water, tea spoon; three or four clean wooden or iron hoops, and a bed-pan. The towels, as well as the bed clothes and dresses, must be well washed and rinsed in the solution of chlorinated soda but not be starched. During the operation no one is allowed to leave or enter the room. Under no circumstances is any per-

son permitted to visit the patient or remain in the room except the nurse or the attending physician.

You should also see that the following is on hand, and give (in writing,) THESE DIRECTIONS TO THE FAMILY DRUGGIST:

R Distilled Water.....5 gallons.
 Oil Silk.....1 yard.
 Lister's Carbolyzed Gauze...1 piece, 5 yards.
 Alcohol..... $\frac{1}{2}$ pint.
 Mitchell's Mole Skin Plaster.....1 yard.
 Liq. Ferri. Persulphatis..... $\frac{1}{2}$ ounce.
 Brandy (French).....1 pint.
 Pure Carbolic Acid.....1 ounce.
 Chloroform.....1 pound.
 (Mallinckrodt's is preferable.)

Or Bichloride of Methyline, if the latter is used I prefer Mallinckrodt's. I used it in several cases, given through Jounker's apparatus, and it acts very nicely. Nevertheless I like the chloroform the best.

Nitrite of Amyl one drachm, is well to have on hand and a Battery.

R Iodine.....gr. ii.
 Pot. Iod..... $\overline{3}$ ss.
 Aquæ Dist..... $\overline{3}$ viii. M.

Sig. Use to fumigate the room before operation.

Here is the atomizer (Lister's spray). I will light it for you and you can observe how it works.

In my earlier operations, I used the carbolyzed spray during the operation. I now discard that plan as not necessary.

R Acid Carbolic..... $\overline{3}$ ss.
 Glycerine..... $\overline{3}$ vii. ss. M.

Sig. Ready to be mixed with water to wash the hands, instruments and sponges. The sponges should be new and of the finest quality, previously well washed in a weak solution of Nitric Acid, then kept in carbolyzed water.

R Acid Carbolic..... $\overline{3}$ i.
 Oli Olivæ..... $\overline{3}$ vi. M.

or R Bichloride of Mercury.....1 part.
 Water.....2000 parts.

Sig. Used to pour upon a saucer or plate; the ligatures and threaded needles are laid and kept in this until needed.

R Chloride of Sodium..... $\overline{3}$ iv,
 Albumen..... $\overline{3}$ vi.
 Distilled Water.....oi. M.

Sig. Used for dipping in the hands, instruments and sponges, after disinfection, and before using them. This is the artificial serum and has to be diluted with three parts of warm water, the temperature of blood heat. It is also used to syringe out the abdominal cavity, to clean it of any blood or fluid it may contain. I now prefer to use the artificial serum exclusively, instead of carbolic acid or mercury for hands, instruments and ligatures.

R Pulv. Opii.....
 Sacc. Albi.....gr. xii.
 Misce et div. in Chart.....No. 12

Sig. Used as directed or needed.

R Morph. Sulph.....gr. i.
 Aquæ Dist.....gtt C. M.

Sig. For hypodermic injections.

"Listerine" may be well substituted for Carbolic Acid.

All prescriptions should be marked in full on every bottle and package.)

So far your drugs and dressings. Here I like to call your attention to a point of interest in regard to chloroform. Chloroform should never be kept in large bottles for the reason that very seldom a pound of chloroform is use at any one time, opening and reopening the chloroform spoils it—injures its virtue. Water will also spoil it. If you send to the drug-store for one or two ounces of chloroform you cannot depend upon it, for you do not know how long it has been upon the shelf and how many times it has been opened and thereby having absorbed moisture. At any rate it is a risk to administer chloroform of which you know nothing. I use Mallinckrodt's special prepared chloroform and as you see here it comes in two ounce vials with glass stoppers, hermetically sealed. Whenever I use chloroform I open a fresh bottle, whatever is left is never used again for inhalation. It would be much wiser for druggists to keep chloroform in two ounce bottles, if you need more than two ounces obtain two or three or more bottles, if less, the loss is not much. Up to this time I have not to regret the death of a patient from chloroform; but nearly came losing two healthy patients in my office after administering the chloroform left from a pound bottle which had been opened several times. My chloroformist Dr. E. Chancellor has kept a patient under the full influence of chloroform for me for one hour, until I performed an Ovariectomy, with but two ounces of Mallinckrodt's special chloroform without vomiting or any other unfavorable symptom. You see I still adhere to the chloroform, I prefer it instead of any other anesthesia.

NOW THE INSTRUMENTS.

I brought my case and will explain to you as I go along. Here is a plain trocar, $\frac{1}{2}$ -inch calibre about 12 inches long which I employ for tapping a cyst without further operation. It seems to be very large but it is not; I first cut through the skin and cellular tissue with a scalpel then introduce the trocar and draw off the fluid. The opening will contract almost completely. Here is another trocar like the Dome trocar, used for tapping a cyst after opening the abdominal cavity; you see it can be withdrawn and has a safety tube and you can do no injury in searching for a partition within a cyst. This is a Dawson's Modified Clamp. Two wire retractors, three Peaslee's needles, one tooth-edged scissors, one pair curved small scissors, one pair straight small scissors, one steel sound No. 10, for locating adhesions, one artery forceps slide catch, one female catheter, one pair wire cutting forceps, one steel grooved director, one large tenaculum, one scalpel—fixed handle, one straight bistoury—fixed handle, one probe pointed bistoury—fixed handle, one artery needle—fixed handle, one dozen steel ovariectomy pins, one catgut ligature jar, one granite enameled iron tray, for carbolized silk or linen ligature, oil paper, oil pasteboard strips, etc.; with room for needles, beads, iron and silver wire, etc. Here are two of my dressing and needle forceps, with slide catch six inches long, extra deep serrated.

These are my cyst elevators, made of strong steel wire, shaped like a

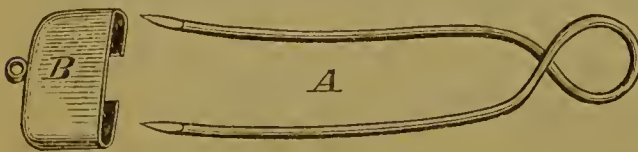


FIG. 3.—Half the smallest size.

A—The Elevator. B—A cap to protect the points.

tuning-fork, or lady's hair-pin, slightly curved, a double needle; and here is a cautery iron, and two pieces of rubber tubing about four feet long, one of them is fastened to the trocar. Also twenty-five or thirty fine needles

ready threaded with fine linen ligatures, in case you should need them to stitch up any openings in the intestines or bladder that may happen to

give way. Instead of the ordinary surgeon's needle I use the Fig. 4. They are made of sewing machine needles. The eye is in the anterior instead of

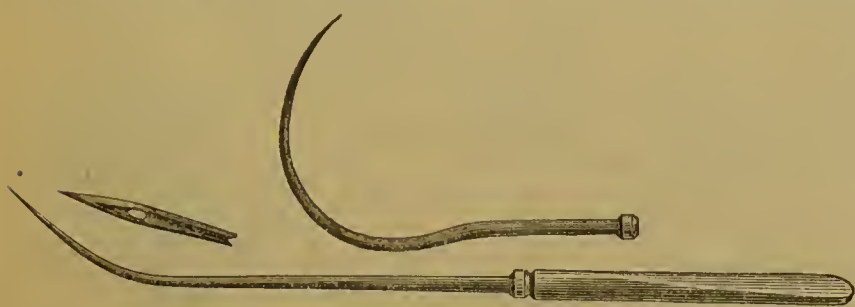


FIG. 4.

the posterior part as you see in the drawing and perfectly smooth, one long ligature is all that is required. I had little handles put on mine,

saves the trouble and annoyance of a needle holder. Mess. A. M. Leslie & Co., No. 204 North Broadway, of this city, manufacture and keep the various sizes on hand.

These are the instruments necessary for the operation. Have them all arranged conveniently upon a small table; see yourself that everything is in perfect order and nothing missing, keep everything out of sight of the patient. Before your patient is brought in, arrange and designate the duties of each of your assistants, tell each of them what you expect him to do, and to do that and nothing else; place your main assistant on the left of the patient; one for the chloroform, who must be aware of his responsible duty. Intrust your sponges but to one person only, count them out to him, and before closing the abdomen, demand them all; see also that none of the instruments are missing, and allow no one to do anything, especially to put his hand into the abdomen, except you ask him to do so. One ready for any emergency that may happen.

Do not talk, keep quiet and tranquil; have no lookers-on. And let me tell you, see that you have the very best of assistants, one superior to yourself is preferable, at least equal; your main assistant should *never* be inferior to yourself if possible. For one who knows and is acquainted with the operation will render you better service; be not afraid of him who has had the experience for he was once there where you now begin, and he will act forbearingly with you. But avoid the one who is selfish, one who thinks he knows it all. An operator who for his own vanity's sake never employs any but ignorant nurses or young student's or others whom he can blindfold, and who will not be aware of and are not able to observe his mistakes so that he may shine and appear to be a great light, will never gain a great success. Another point of great importance is to pay your assistants and pay them as liberal as you possibly can; cases of charity excepted; you occupy their time, their time is as valuable as yours. Only by paying your assistants you can obtain good and skilled ones; you are then under no obligations to them and they like to assist you and are always ready, and hardly ever disappoint you.

I can obtain scores of Doctors to come and assist me, many come that are anxious to see me operate. But what good will it do me and my patient to be annoyed by idle lookers on who will ask a hundred and one questions to no purpose. What good are those that offer their assistance without compensation, telling you they will come, but when the time arrives they put in no appearance, excuse is, "an Obstetric case on hand," or they come in a hurry half-an-hour behind time, the operation hardly completed off they start, one after another. I know of a surgeon in this city who operated with such assistants, and before the operation was completed, he and the nurse were the only ones left to take care of the patient, to ligature the blood-vessels and finish the toilet.

I can very well get along with two good assistants. I select them before hand, and send this card:

St. Louis,.....188	
Dr.	
The undersigned requests your presence to assist him in an operation for	
at	
on the.....day of.....188..., at.....o'clock.....	
Duty.....	
For which you will receive a cash fee of \$.....	
Providing that you have not been in a dissecting room or engaged at an autopsy, and have not seen or attended or have been in contact with any contagious or infectious diseases whatsoever, for the last 24 hours previous to date of operation.	
Taking due precautions of having hands and body as well as garments thoroughly surgically clean. Operating gown will be furnished.	
Be punctual, as no one will be admitted to the operating room after the operation has begun, nor will anyone be permitted to leave the room until the operation and toilet is completed. Truly yours,	
EDW. BORCK, M. D.	
Cor. Ninth & Salisbury Sts.	
PLEASE ANSWER.	

Never neglect to put in the amount of fee you will pay cash, (cases of charity excepted) and the answer you receive will almost invariably read "I will be on hand," and they are on hand and will remain until you thank them for their service and right and justice will prevail on both sides. Neither neglect to invite and select the family physician or the physician who kindly sent you the case to be one of your assistants.

Everything being ready, the patient is brought in, laid upon the bed, covered and chloroformed. The assistant will gently support the abdomen with his expanded hands. You begin your incision through the skin a little below the umbilicus in the linea alba and carry it down to the pubis, then divide the cellular and adipose tissue, using your groove director, layer after layer, until you come to the peritoneal covering; if you miss the median line move your director from side to side and you will find it again. However, I think there is no harm, perhaps an advantage, in cutting through the rectus muscle. Having reached the peritoneum, stop and wait until all hemorrhage has ceased. Then pick up the peritoneal layer with a forceps, nick with the knife and divide it the whole length. The cyst will now be exposed. You can recognize it by its bluish appearance; if you are not sure examine it closely, you will see whether there are any adhesions and may use the sound for that purpose. If you have not room enough lengthen your incision. Having satisfied yourself about that, the next step will be to empty the cyst.

Let us suppose this bladder which lies before us and which is filled with water, to be a cyst. You take the elevator and introduce it thus: see Fig. 5. Now take the trocar, thrust it into the cyst, between the prongs and fingers. See Fig. 6. The advantage of this method is: no fluid can escape from the cyst and the sack empties



FIG. 5.

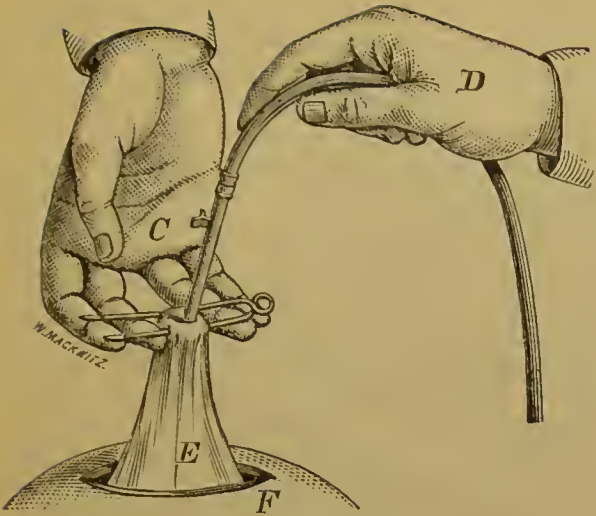


FIG. 6.

C—Right Hand of Assistant. D—Right Hand of Operator. E—The Cyst. F—Abdomen.

iently employed to transfix the pedicle, used with the ligature; with the cap in its place the pedicle can be fixed in lower part of wound, the elevator resting transversely upon the outside of the abdomen, and no clamp at all is needed.

You see how nicely it works, it acts like a siphon, the thinnest cyst can be held in this way without tearing; the patient may be turned over on her side to facilitate matters. I have employed this method in all my operations except the first, this idea struck me then and this little instrument has given me a great deal of pleasure, for a description of the same has appeared in many medical journals here and abroad and has been translated in almost all of the modern languages, I may say it travelled around the globe, and I am pleased to notice that many American, English and French surgeons now prefer to employ this elevator or needle.

The cyst now being emptied, adhesion if there be any separated, and blood-vessels tied, the whole mass lifted out of the abdomen, you take this clamp and secure the pedicle and cut it off above the clamp with the serrated scissors. Now you must tie and secure the pedicle, do this by transfixion, thus: Take one of these Peaslee needles armed with a strong ligature, secured into a handle, pushed through the middle of the pedicle, then slip in not less than four single strong silk threads, never roll them up rope-like you cannot secure a safe knot in that way. Now withdraw the needle with the silk, you have four ends on each side. Tie each half with two of the ligatures and the whole again with the other two, cut the ends short, now remove your clamps slowly, be sure that all bleeding has stopped, or suspend with the clamp and transfix the pedicle with an elevator "which is a double needle;" ligate the pedicle simply below the needle. I often prefer this method; the following steps are the same.

By this time your cauterizing iron is ready heated to a black heat, clean it and scorch the end of the pedicle carefully, that is to say amalgamate it. Done! drop it into the pelvic cavity. The pedicle may also be treated without the cauterizing. It seems to me that instead of dividing the pedicle it would be just as well to cut through the cyst close to the pedicle, leaving a part of the cyst upon the stump for protection, of course removing the internal secreting membrane of the cyst. This would be a natural protection and I think that even the ligature can be dispensed with. Why? If the cyst is broadly adherent to the peritoneum or intestine, or

itself; it is gently and very slowly drawn out, the trocar is pushed gently deeper at the same time; the abdominal walls collapsing around the cyst, which are supported by the hands of an assistant thus preventing any of the viscera from protruding, and by the time the cyst is nearly empty, it is also almost drawn out from its bed; the hold is firm and unnecessary traction and manipulation is avoided and no air can enter. If needed a ligature can be applied around the cyst and trocar below the prongs of the elevator. With a little care all soiling of clothes and bedding can be prevented. This elevator may also be conven-

bladder, no one would cut through those parts to separate the cyst, but he would cut through the cyst wall, as I have done before myself, leaving that piece of the cyst which is attached to the other organ, remove the secreting membrane; often without any hemorrhage and without any bad consequences. This I will put into practice as soon as I have the proper chance.

I have up to this time employed the intra-peritoneal method in every case. Now comes the most important duty; namely, to take time and search for every bleeding vessel, secure them by fine linen carbolized ligatures, cut short. You may have to use one only, you may have to employ 50 or 100, no matter how many stop the bleeding, wash out the abdominal cavity with the artificial serum, after this is done thoroughly you are ready to close the wound. This you can do in different ways. Sometimes I take one of these large pins, put two of these beads upon it, then thrust it into the one side of the abdominal wall an inch from the edge of the wound and be careful to embrace skin, muscular and other tissues and the peritoneum, then let it run out through the other side from within, using three or four of these pins; then bring the lips of the wound together so that the peritoneal surfaces will meet (for this is important.) They unite within the first 24 hours. Then put two more beads upon each of the other side of the pins and fasten with thread or small pieces of lead, (these are deep seated sutures,) then I put in as many superficial linen sutures as may be needed to close the wound completely. Or I use strong silk or linen sutures for the deep seated ones instead of the pin. A double ligature is introduced as described, then insert through the loops on either side a strip of strong pasteboard, previously well saturated in carbolized oil, and use like a quill suture. Oiled paper or glass is the only material I know of that does not irritate the skin. However, the pin and beads are preferable, for the reason, if any swelling takes place, one or more of the beads may be broken and the tension relieved. I never use cat-gut it is absorbed too quickly and is not safe. You may also employ the method I adopted in one of my cases that is to close the peritoneum with fine ligatures in the manner I showed you previously in intestinal sutures, the rest is closed as usual not inclosing the peritoneum. In my last eight cases I did not suture the peritoneum at all merely thrusting the needle through the skin and muscles, leaving the peritoneum untouched.

I mentioned before, that it might be an advantage to cut through the rectus muscle half or an inch beyond the linea alba instead of directly through it in the median line, and why? If the peritoneum is enclosed like an apron between the aponeurosis of the rectus muscle it might prevent the perfect union of the same and the patient is in danger of a ventral hernia afterwards. It never happened in any of my cases, but ventral hernia has been the sequel after ovariectomy and it strikes me that this may be the cause. To avoid this the method last described may be employed. But if the incision is made through the muscles and union takes place there can be no such danger.

The wound being closed, everything cleaned, now comes the dressing. I use several layers of antiseptic gauze over this a large layer of salicylic cotton, then a flannel bandage snugly applied. However, where the abdomen is flabby it is well to support the abdomen with one or two pieces of adhesive plaster, "mole skin" before applying the dressing. Then I generally give a hypodermic injection of $\frac{1}{4}$ gr. of morphine.

Have all instruments and utensils brought out of the room before the patient rallies, leave her on the operating bed.

The after treatment depends upon circumstances and must be adapted accordingly.

In regard to the proper time for operating see my article in the Cincinnati *Obstetric Gazette*, March 1880.

For form of note book see Well's, Page 141. It is the one I adopted.

Now gentlemen, allow me one word in conclusion. You as experienced practitioners came here to gain that additional knowledge which will enable you to perform your duties more thoroughly, more faithfully, do not shrink from that duty whenever you are called upon to give a human being the last chance, the last hope.

I have tried to explain to you all the steps as well as possible. No doubt every one of you will feel more competent now and have the courage to undertake the task. And I advise you to do it whenever a chance presents itself to you. You often will hear a specialist say, no one but an expert should do this or that. Now I dislike such utterances and hate to read such sentences.

They cannot live to be experts always, some one has to take their places, and how did they become experts? By practice.

But one thing I will say to you and remind you of and that is, whatever operation you may undertake to perform be well prepared, even unto the smallest details, depend upon no one but yourself. Do not think that all those little matters are idle fancies of mine. They are necessary, no one will meet with success unless he takes care of the minor things. Have everything on hand that may be needed, there is no earthly excuse for not having them when they are within your reach unless you are in the wilderness, then you may cut a reed and use it for a tracer or sharpen up a flint stone for a scalpel.

Give your patient all your time and attention until out of danger, the excuse of not having time is not justifiable. Do not accept a patient if you cannot attend to her properly. Be not guilty of any neglect. So that your conscience may be still and quiet, for omission is as censurable as commission.

I often remain with my patients two and three and four days and nights at a time. By doing so I saved one of my patients whose life otherwise would have faded away before assistance could have been summoned.

When I first began this operation years ago I had to bear a good deal of sarcasm on account of the course I pursued. I stood it all and to-day I am well satisfied.

I thank you for your kind attention.

PART III.

REMARKS ON ABDOMINAL SURGERY, WITH THE RESULT OF 50 CASES.*

At the meeting of the Tri-State Medical Society held at Evansville, in 1879, I read a paper entitled "Ovarian Tumors—At what Stage of the Disease is it the Proper Time to Operate?" At that time my own experience was very limited, and I had to sustain my views in favor of early operations on theoretical grounds, making quotations from and using some statistics of others. However, my paper was followed by a very interesting and instructive discussion. One surgeon remarked that my paper was a good one containing valuable points and suggestions, but he could not agree with me as to an early operation—he believed in the waiting plan: let the patient live as long as she possibly can and resort to extirpation only as a last chance. He had lost at least twelve patients in succession.

Another surgeon held the same view but acknowledged, and to his credit may it be said, that he had lost thirteen patients in succession and

* Read before the Mississippi Valley Medical Society, at its meeting in Evansville Ind., September, 1885.

was almost afraid to touch another case; there were others also of the same opinion. There was but one surgeon who stated that he always operated as early as he had made a diagnosis if his patient would let him; he saved about sixty-six per cent. of his cases.

My paper was published in the *Cincinnati Obstetric Gazette*, March, 1880, but the report of the discussion was omitted.

I still adhere to the views then expressed in favor of an early operation, and to-day I am able to sustain my former theory by my own practice.

In March, 1878, I had my first case of ovariectomy. The patient was a lady fifty-five years of age, suffering from a multilocular tumor. She lived in the country and was recommended to me by my neighbor and friend Dr. G. W. Hall, and I shall be ever thankful to him for his kindness; for if he had not sent me this case I might never have had the others. Previous to this time I knew nothing about the operation and very little of the disease, having had but little opportunity to observe such cases, and never having seen the operation performed. My surgical practice ran in another direction. However, I studied the operation as well as I had time to do while the patient was under observation and made all the necessary preparations. I tried to find a work on ovarian tumors by either Peaslee, Atlee or Wells, but none of my acquaintances in St. Louis had either one of them in their library. Dr. Hall advised me to operate under the guidance and with the assistance of one who had had experience in such cases, which wise suggestion I followed and called upon Dr. Louis Bauer, who cheerfully agreed to aid me with his counsel. Under his precept I operated upon this patient, notwithstanding that all the other surgeons who were consulted advised against the operation and favored the expectant plan. The cyst was only of a few months' duration, in the third stage. I conducted the after-treatment myself; my patient recovered.

Here allow me to relate some of the tribulations I had to endure during the progress of my case; and I will first state that, at that time, the opinion of the profession of my city was almost unanimously for the waiting—the last moment—plan.

The surgeons in St. Louis prior to 1878 had not been very successful with ovariectomy. The bad results were attributed to the atmosphere—they said that malaria in our climate acted so very detrimentally upon these cases. It was taken for granted that every patient operated upon would die, and every doctor even those connected with the case expected that mine would also succumb, and that is the reason why every doctor whom I met would put the polite questions: Is your patient dead? Will she die? How long do you think she will live? Questions framed in that style were the interrogations of all, except of Dr. Alleyne, who in his kind and big heart said: "I hope she will recover;" well, she did and it was a wonder. Being called an enthusiast, it was said that the success would drive me crazy.

My next case was a lady forty-three years old. I removed a large right ovarian cyst in the last stage and also removed the uterus; she died. Seventeen years before Dr. Pope had extirpated a cyst of the left side from this patient.

The next case was a young girl, fourteen years old, who suffered from a single cyst of the left side in the last stage; she died.

But we learn something from the cases we lose, and you may rest assured I devoted all my spare time to the study of such cases.

I then had eight successful cases in succession. The next case, one of ovarian cyst complicated with cancer, I lost.

The twelve succeeding cases recovered. Then I lost two cases, both of simple cyst in the last stage of the disease.

Out of my following twenty-five cases I lost but one, a colored woman; I diagnosed a cyst of broad ligament, last stage, and recommended tapping; however, it was agreed to operate and she died.

This gives me fifty cases from March, 1878 to May, 1884, with five deaths, as follows: Simple cysts, 8; cyst of broad ligament, 2; ovarian cyst with cancer, 1, ovarian cyst with removal of uterus, 1; persistent pain of ovary, found on removal to be due to cystic degeneration, 1; fibro-cystic tumors, 6; oligo- and poly-cysts, etc., 31.*

These cases were all from private practice, as I am not directly connected with any hospital, nor have or had charge of any hospital where such cases present themselves or could be sent to; they were all, with the exception of one case, operated upon at their own homes, and were distributed over several States. The cases were all with exceptions of those that died, early operations—from six to twenty-four months' duration; the youngest patient was fourteen years, the oldest sixty years. Twice I used drainage-tubes through the abdomen, and once drainage through the vagina, in cases in which there were many adhesions and consequent surface bleeding. In all the other cases the abdomen was closed; the pedicle was dropped into the abdomen in every case. In one case, a simple cyst, I had to open the abdomen again on the third day as my patient was sinking from internal hemorrhage; I washed out the clotted blood and closed the wound again. She recovered. In this case I had been induced to employ the eatgut ligature. I will never use it again.

After my first case I adopted one mode of operating, which, with the exception of lately discarding the spray, I have strictly adhered to in every instance, and with which you are all acquainted.

I remain with my patients until they are out of danger—sometimes from three to six days.

What influence the atmosphere and the malaria of Missouri and vicinity have had upon such patients I am not able to say at present, for other surgeons of my city and elsewhere have also had brilliant success of late. It may be that the air, so detrimental previous to 1878, has since changed for the better.

Now, when we know that the average life of a patient afflicted with ovarian tumor is four years; that polycysts terminate fatally in twelve-months, oligocysts in twenty-four months, after the third state has begun—what conclusions can be drawn from my own cases?

1. That those cases operated upon in the very last stage died.
2. That the comparatively early operations were successful.
3. That there is no absolute need to send your patient off to a hospital or private institution if she is moderately comfortable at home. I always advise those gentlemen who attend my lectures, as well as others, to do as I do—take care of their own patients, if they have the confidence in themselves to do so; but if you do, by all means give your patient all your time and attention and be well prepared for all emergencies.

For one class of patients the hospital may be indicated; for another class of patients a private institution may be preferable or more convenient for the surgeon; nay, it may become a necessity for him who has more than one case—it saves time and labor; for I know what it is to travel fifty, one hundred or five hundred miles to see your patient, and prepare for an operation and give her your exclusive time. It has been intimated to me more than once that I must pick my patients. I will freely and openly admit that I do and I will tell you how I do it. If a case of fibrous tumor of the uterus presents itself and the patient is fairly comfortable, age about forty-three or forty-five, I advise her to wait and not interfere by operation—such are cases for the waiting plan; for we know that if she passes her menstrual period she has a chance to recover; at least her misery will cease, and if the tumor does not shrink, it will at least cease growing. If she still insists upon the operation, I refuse, and advise her

* During the year, 1885, I operated upon five cases with one death. During 1886, I operated but on three cases which all recovered.

o obtain the opinion of some one else. I know that some of such refused patients have been operated upon by others and they have died. If others present themselves with tumors in the last stage, with broken-down constitutions and with the chances all against them, I give them no encouragement whatsoever and they will of their own accord seek other advice.

The favorable cases, of course, I encourage, but I never urge the operation. I leave that to the patient to do. Again I see a patient where a certain something—(call it if you will, the faculty of presaging) tells me that the result will or may be fatal; then I had rather not have the patient. I must feel that my patient will survive, and so must she—there must be the utmost confidence on both sides.

I am never anxious for a case; I am never anxious to operate for the sake of the operation. On the other hand I would not refuse a case, even the most desperate one, if the operation offered the only, even the slightest chance of saving her life. Moral duty would commend the surgeon to run any amount of risk.

I will relate a case which I saw in Illinois some time ago, one of ovarian cyst in the last stage, complicated with extra-uterine pregnancy. The woman suffered dreadfully, she was a pitiful object to look at and certainly doomed to death. Had I been prepared I would have operated at once as she was willing; the next day was Sunday and she would not be operated upon on that day. It was put off until Monday morning; but the patient did not live until then. Sunday the tumor broke through the vagina, and she died at once. In such a case I think it would have been perfectly justifiable, at least to try and give relief.

My intention was to relate all my cases in detail, but I think now that such is not necessary; for, even after one has gone through the labor of preparing a long list of cases and their histories, very few will read them, far less study them. We are well enough supplied with the reports of isolated successful cases. You can hardly take up a journal, wherever published, that does not contain the report of a case. They are of no value in a statistical sense, but it speaks well for the American profession that there are men, even in the smallest towns capable of performing any operation and ready to do their duty. In the near future this will be considered a minor operation. It is reasonable to suppose that wherever there are successful cases there may also have been failures. How few of those isolated fatal cases do we see reported?

I have seen many operations abroad and at home. Of the home cases in which I have seen others operate the majority died. Not a single one of these fatal cases has been reported up to the present time. Well, my friends may say I picked my cases, I would call it a judicious selection or discrimination between cases and recommend all who begin to do the same. One thing my friends cannot say: that I hide my fatal cases. Every one of my fatal cases has been published at once and in detail, and I will publish every other case I happen to lose in the future, for the benefit of all. I keep full records of all my cases, and some day, when their number has doubled I may have them published.

Since 1878 I have seen and examined on an average about twenty-five cases per year for abdominal enlargement, and in not a single instance have I made an exploratory incision for the purpose of making a diagnosis, though it is justifiable in very doubtful cases, and as a rule, safe.

I do not believe in the practice of opening every woman's abdomen because it is easier to make a diagnosis. I prefer the more difficult manner—without the knife; but whenever I might be in doubt and should have to resort to an exploratory incision, it would be with the distinct understanding to go on with the operation at once if such were indicated.

MEMORANDUM OF
DR. EDWARD BORCK'S
CONTRIBUTIONS TOWARDS
MEDICAL AND SURGICAL LITERATURE,
—TO DATE—
ST. LOUIS, MO., 1887.

—1871—

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—1874—

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Reflections upon the History and Progress of the Surgical Treatment of Wounds and Inflammations. (Report on Progress of Surgery.) *Transactions of the Medical Association of the State of Missouri*. June, 1879.

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—1880—

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* By the number of Inquiries is understood the letters and postals received by the author, from physicians in different parts of the country, asking for reprints, or inquiring where the said article could be found or obtained—after it had been published and noticed by the Medical Press.

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†**Home Again!** A Synopsis of a Tour Abroad. The first part consists of the report made, as a delegate to and a member of the 8th International Medical Congress, Copenhagen, Denmark, August, 1884, to the Medical Society, with such additions as may be of interest to the medical profession. The second part consists of general sight-seeing, and other information of the trip. (Through the kind notices and comments from the Editors of almost every Medical Journal here, and several abroad, the applications for "Home Again" were over 1,300 from all parts of the U.S.A., and Canada, and over 100 from Europe.)

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†**Ovarian Tumors.** Diagnosis and Operation. Second and Revised Edition with Six Wood-cuts.

On Hand: Will be sent gratis to any Physician who will send his address and a postage stamp to the Author.